APPENDIX E

PROTOTYPE SHEAR PANELS FOR COLD-FORMED STEEL SEISMIC DESIGN (English I-P units only)

- E1. INTRODUCTION. This appendix provides tabular data for the selection of possible prototype shear panels that may be used in the seismic design of cold-formed steel structures. These panels were developed for an example problem presented in Appendix D using the design guidance presented in Chapter 3 and Appendix C. Each shear panel given in Table E-1 is defined in Figures D5, D8 and D9 as indicated in Table E-1.
- E2. DEFINITION OF TERMS. The prototype shear panels given in Table E-1 shall be used based on the following definition of terms:

 V_x = the maximum story shear per shear panel, based on Equation C-27 in Appendix C. GL_{max} = the maximum gravity load per shear panel, based on Equation C-17 in Appendix C. GL_{min} = the minimum gravity load per shear panel, based on Equation C-18 in Appendix C.

E3. PROTOTYPE PANEL LOAD TABLE. Table E-1 provides the tabular data needed to select prototype shear panels.

Table E-1. Prototype Shear Panel Load Capacities.

| | | O. | OI. |
|-----------|--------|------------|------------|
| | V_x | GL_{max} | GL_{min} |
| | (kips) | (kips) | (kips) |
| Figure D5 | 9.5 | 6.0 | -13.2 |
| Figure D8 | 29.5 | 34.1 | -6.5 |
| Figure D9 | 33.5 | 44.1 | -36.5 |